

FIG. 1

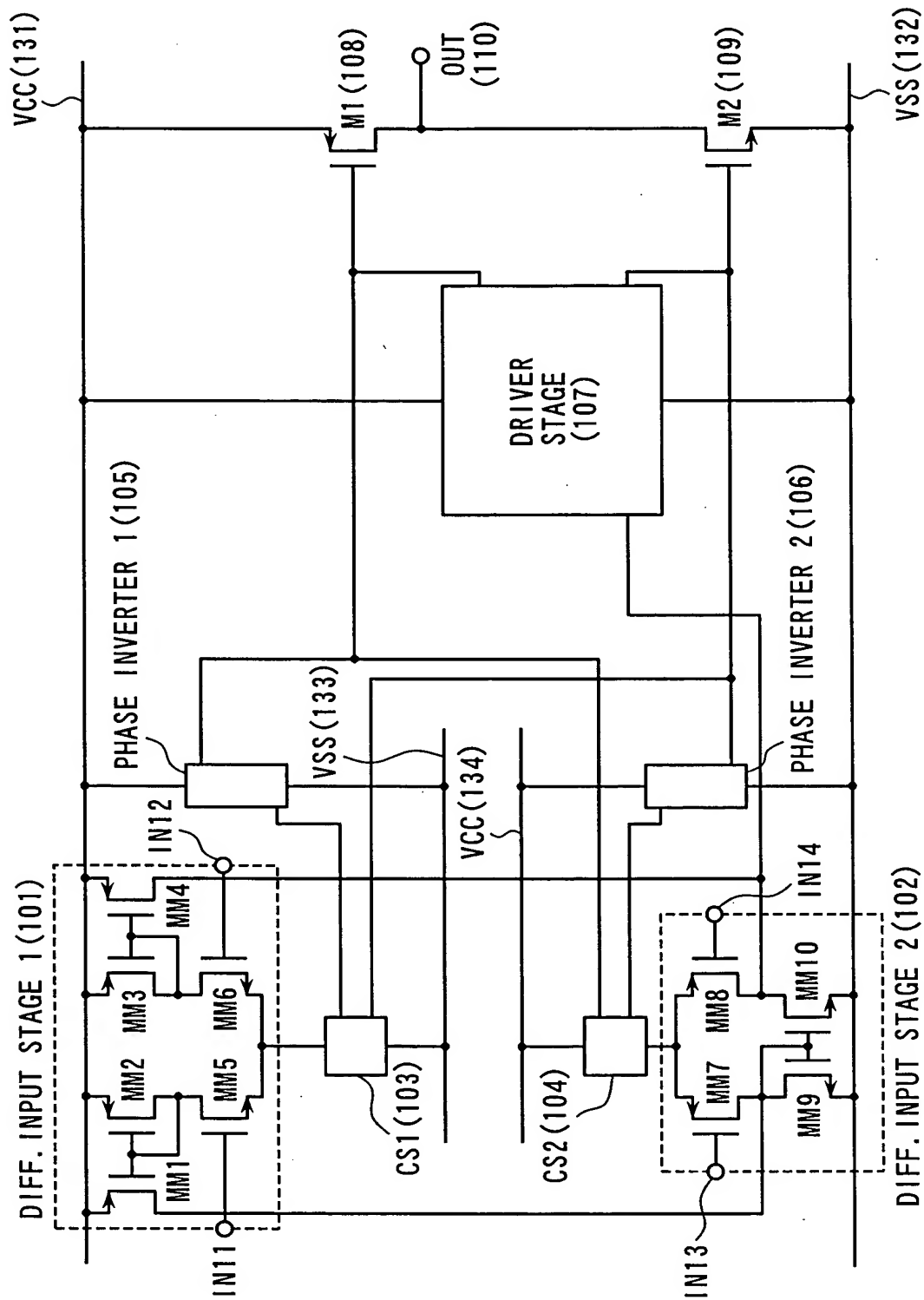


FIG. 2

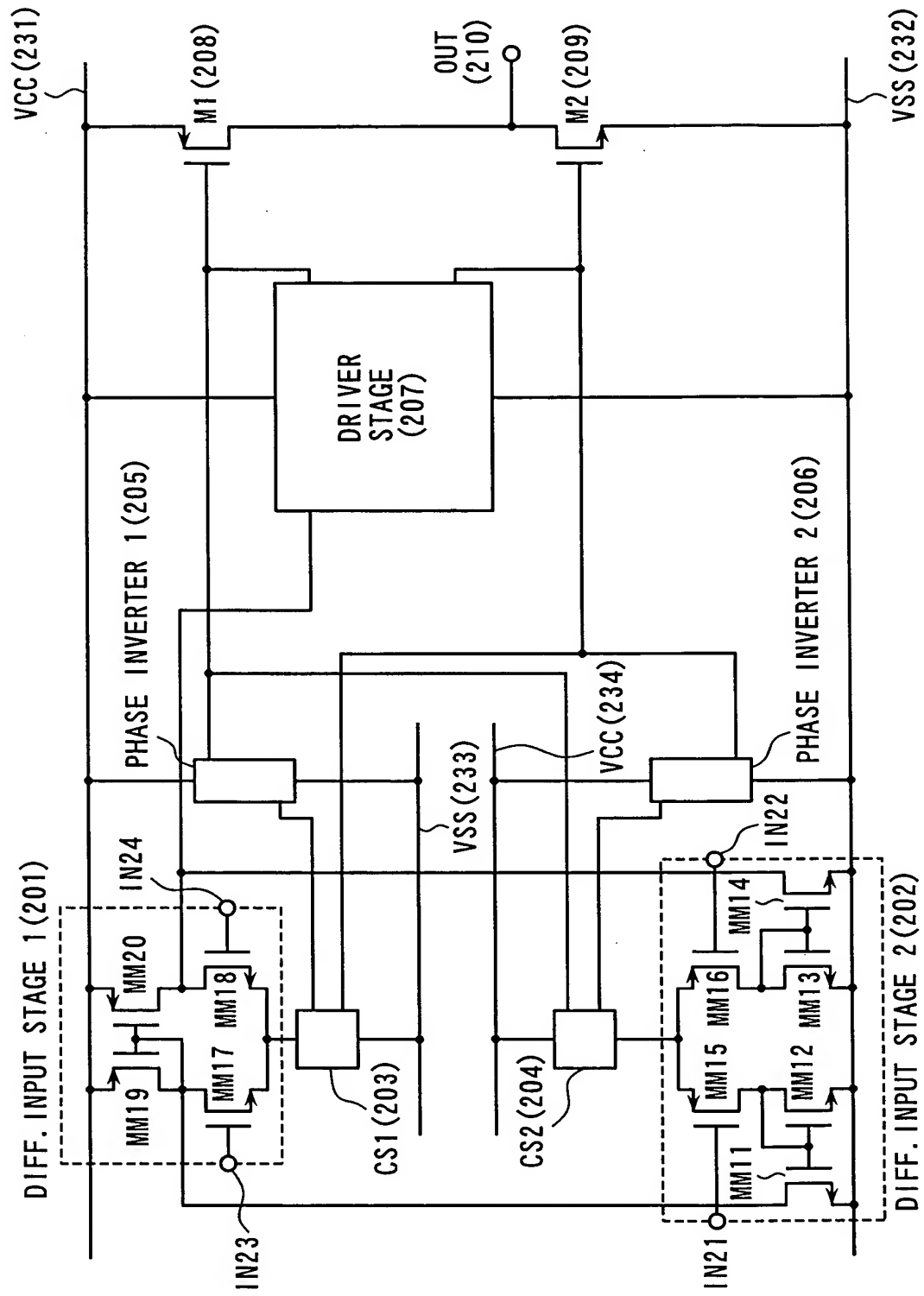


FIG. 3

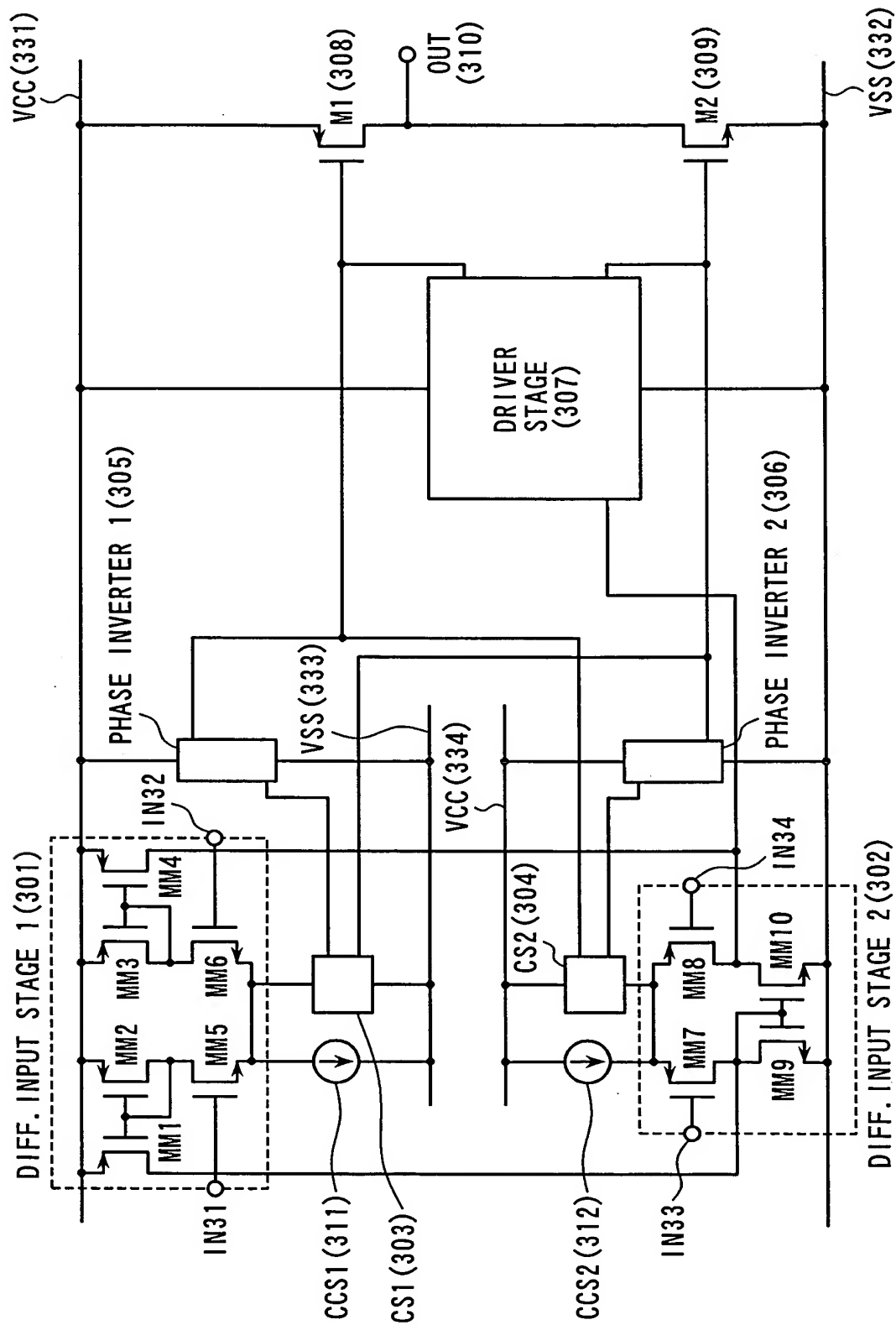


FIG. 4

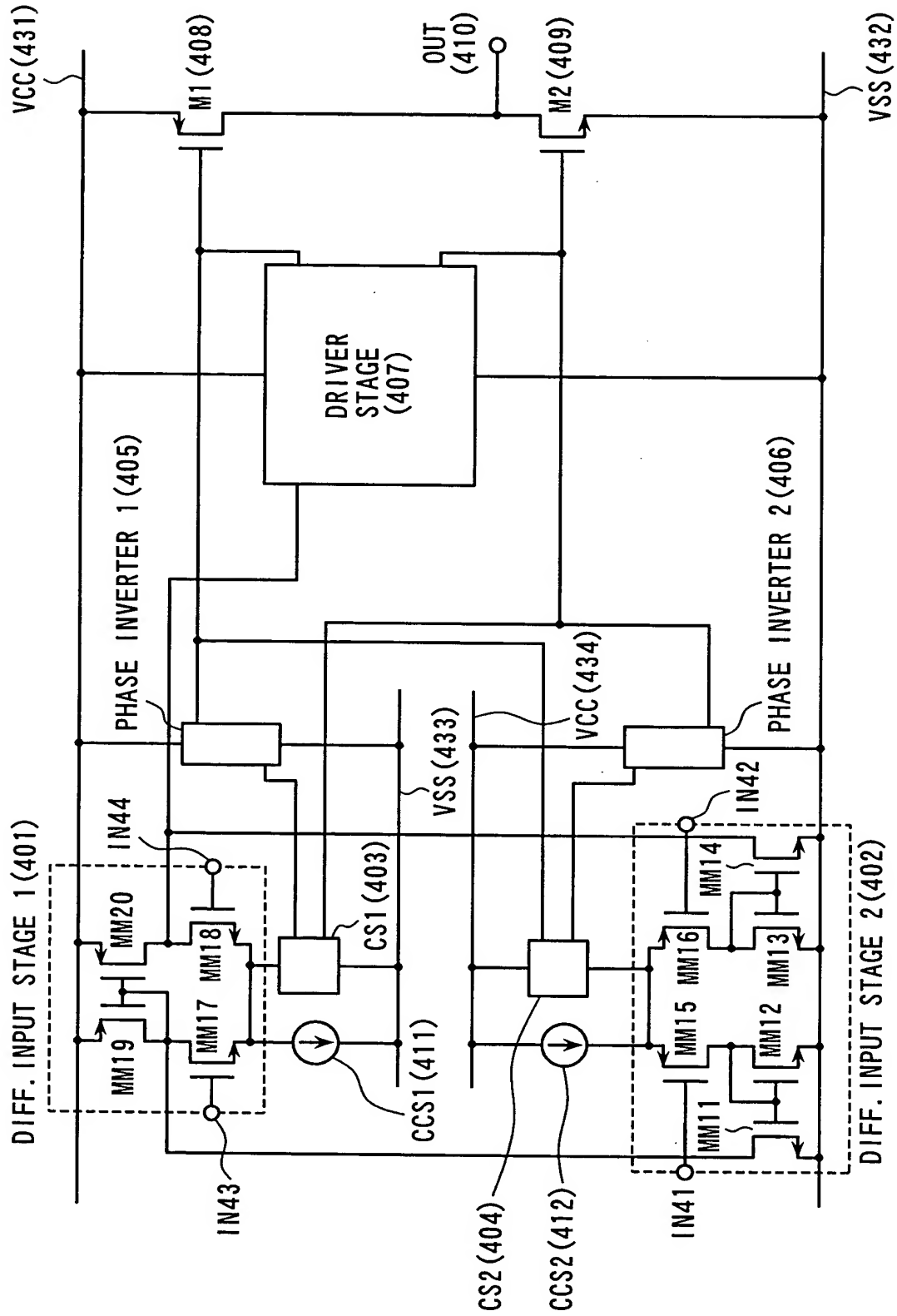


FIG. 5

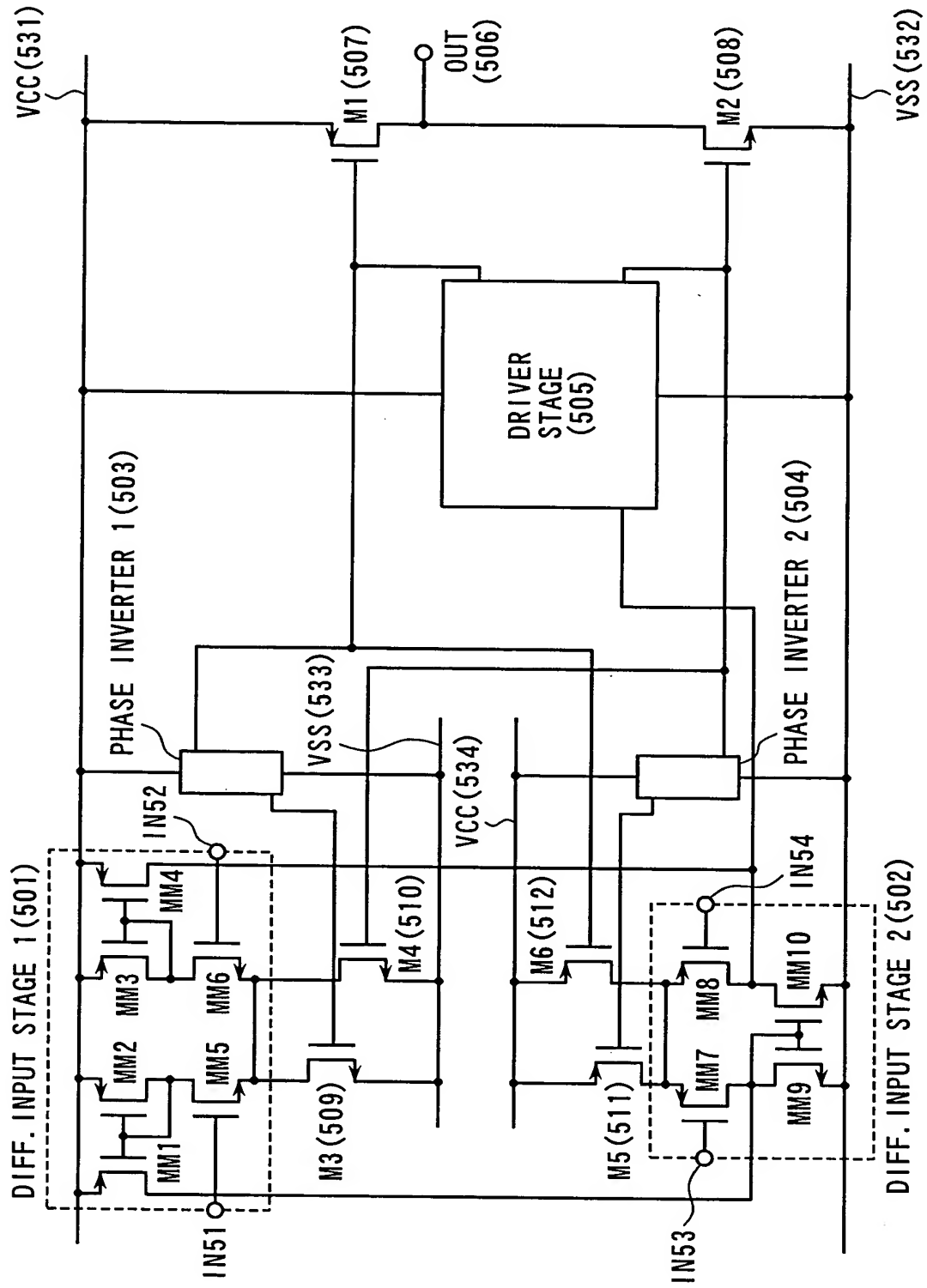


FIG. 6

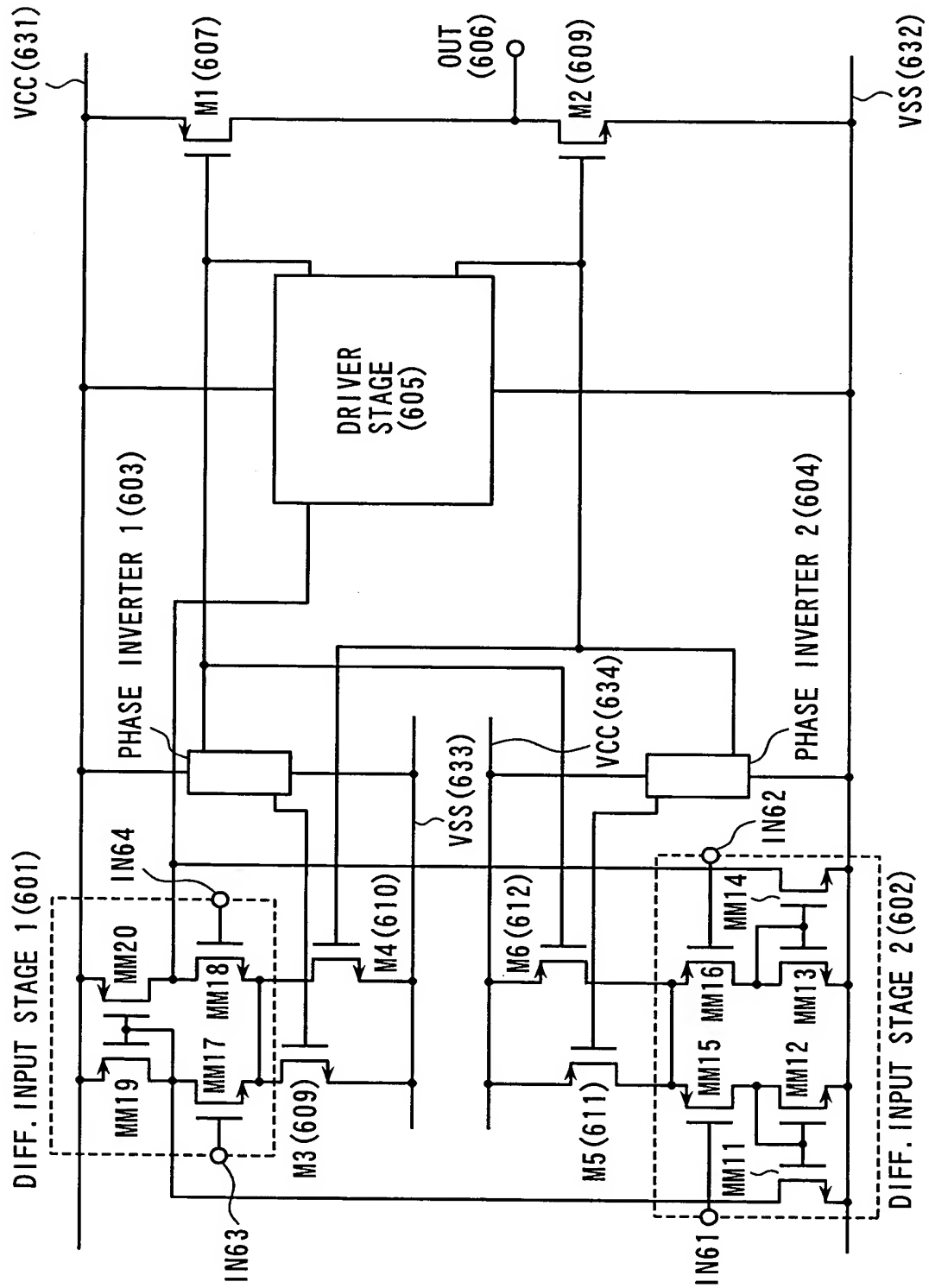


FIG. 7

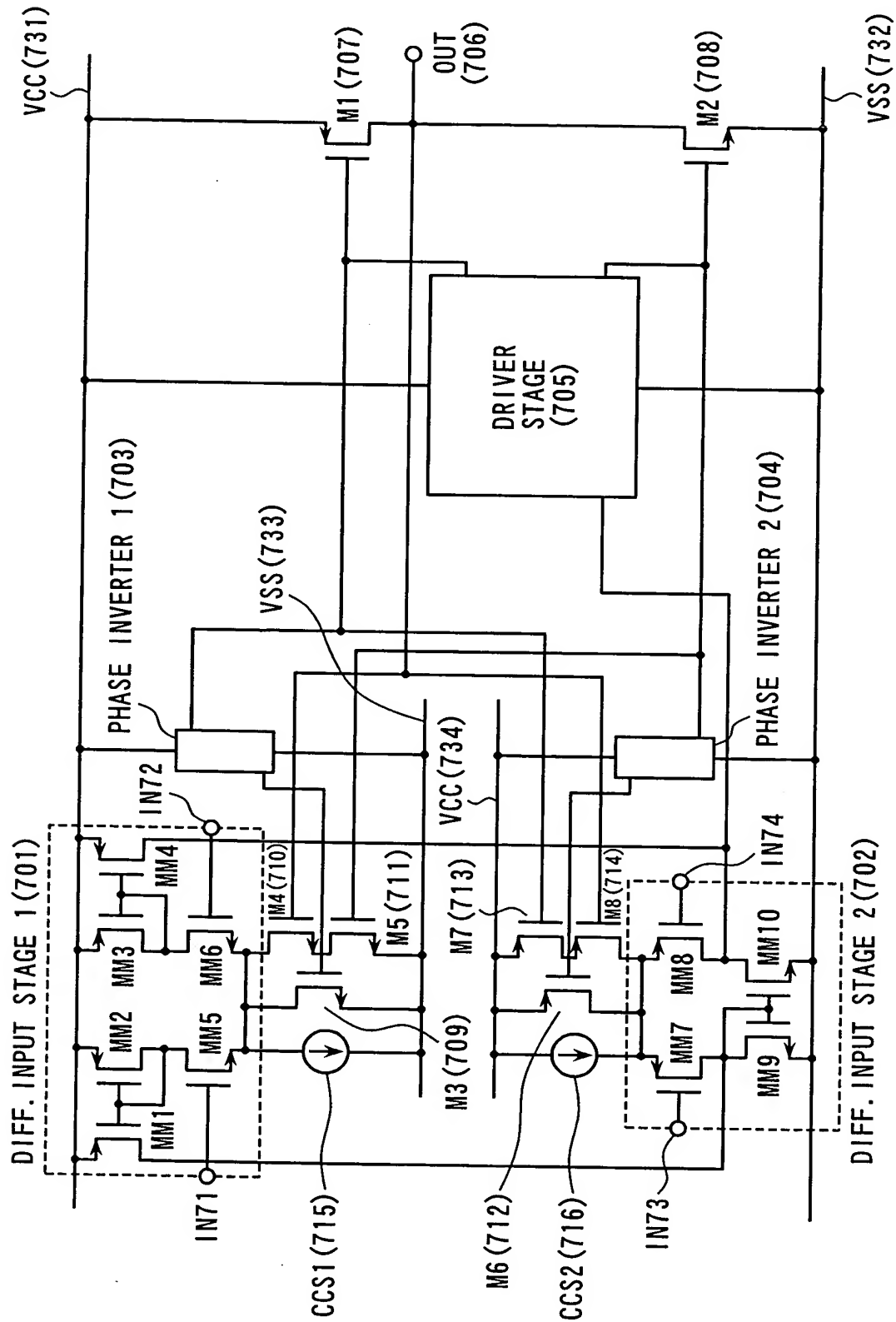


FIG. 8

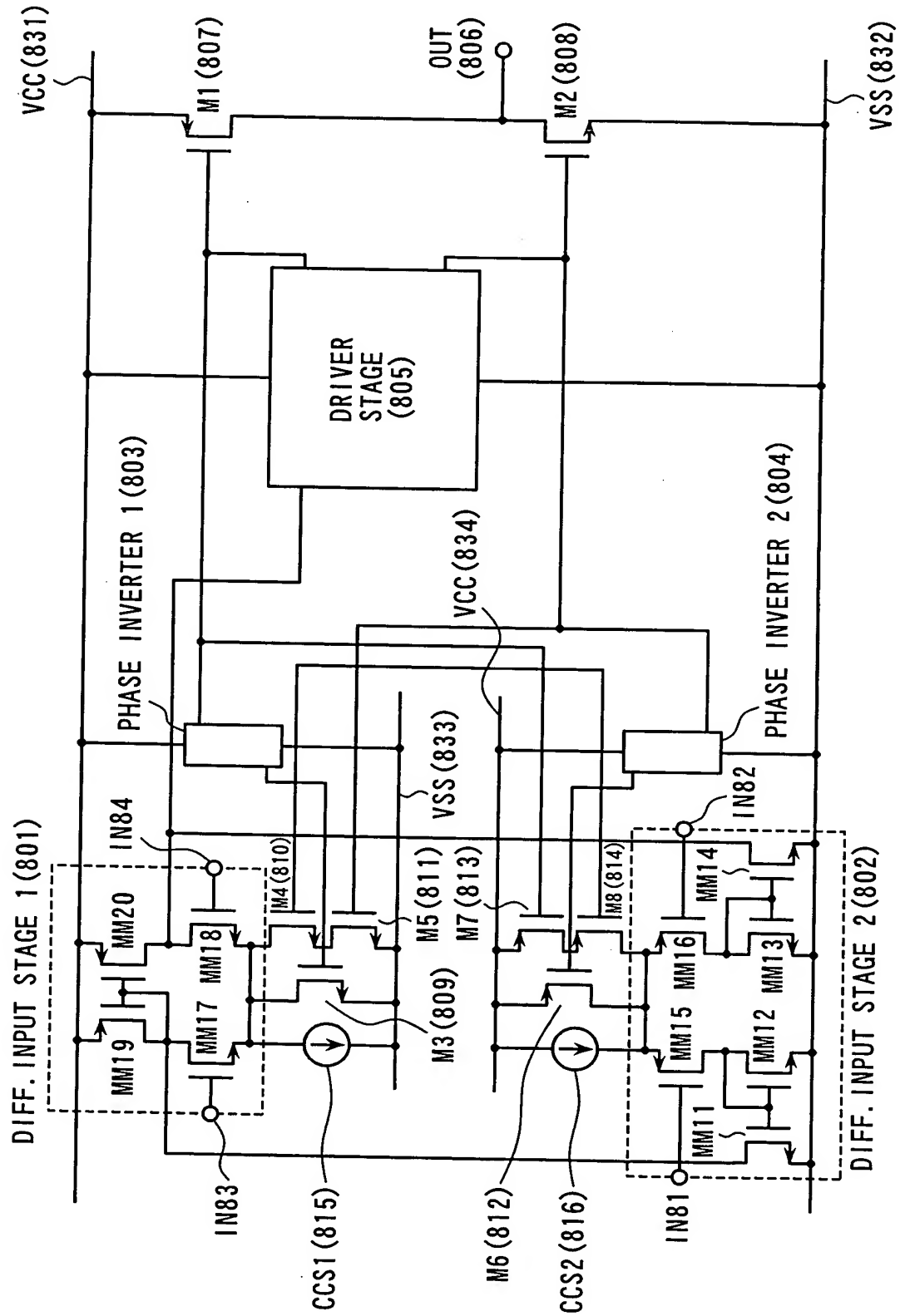


FIG. 9

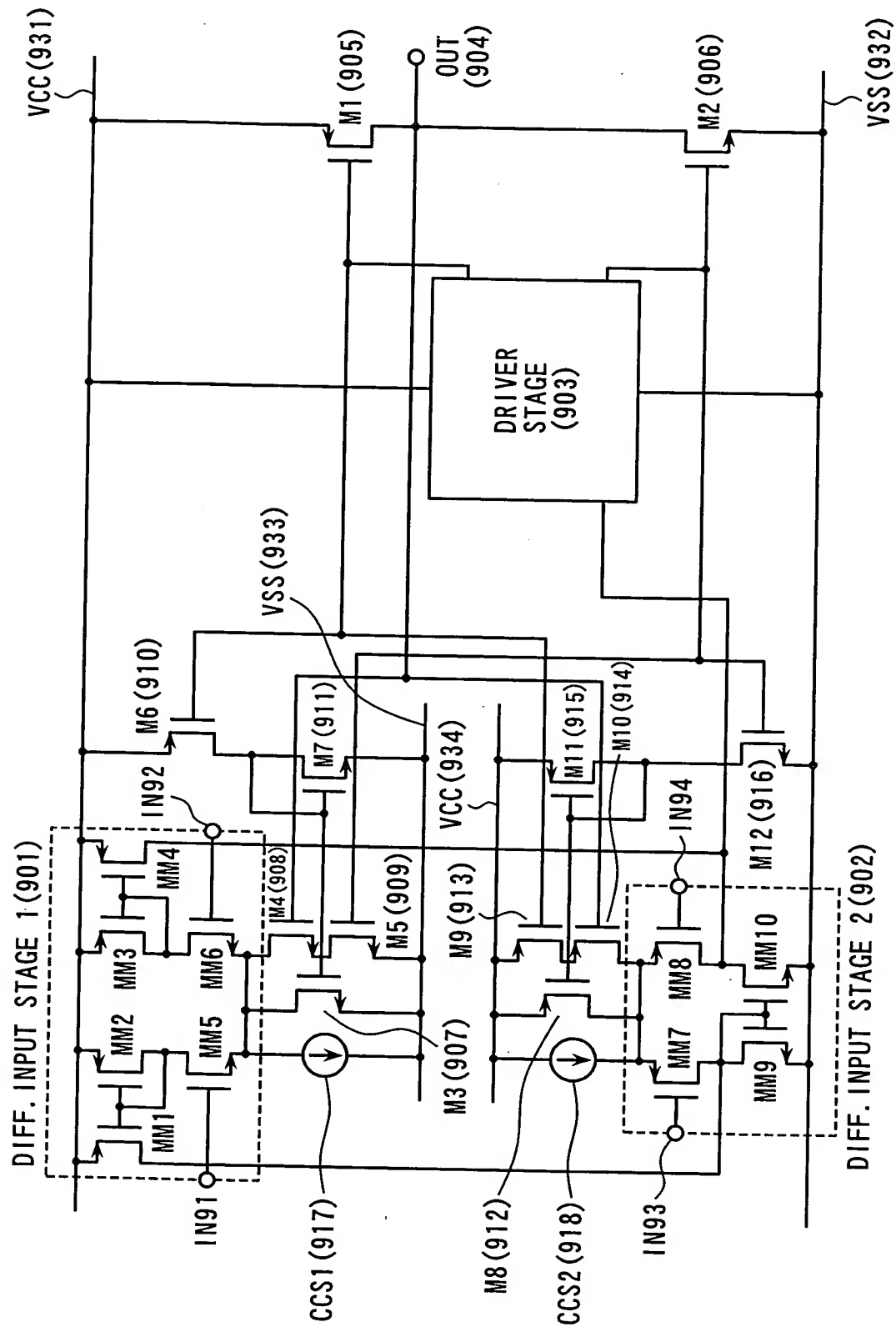


FIG. 10

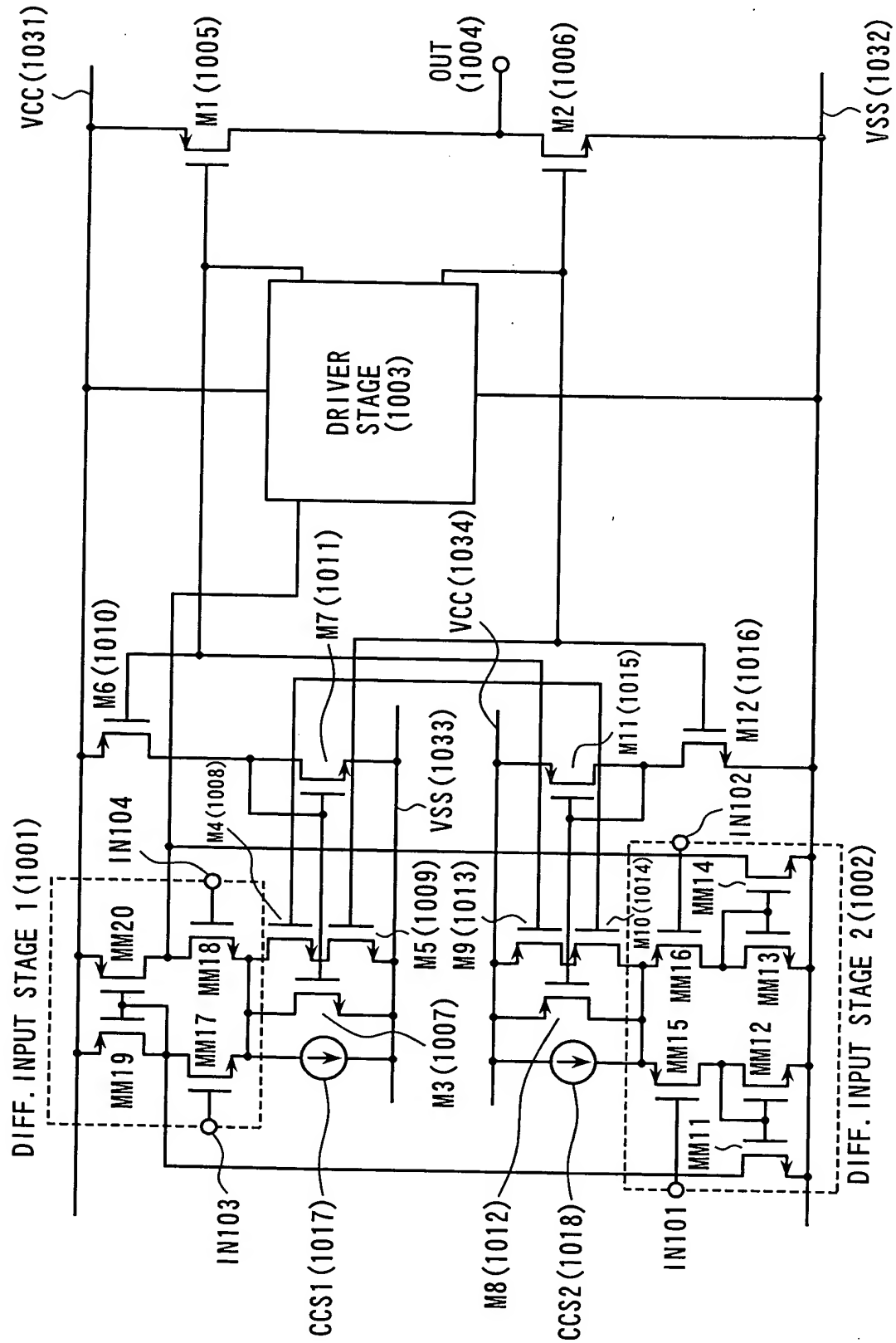


FIG. 11

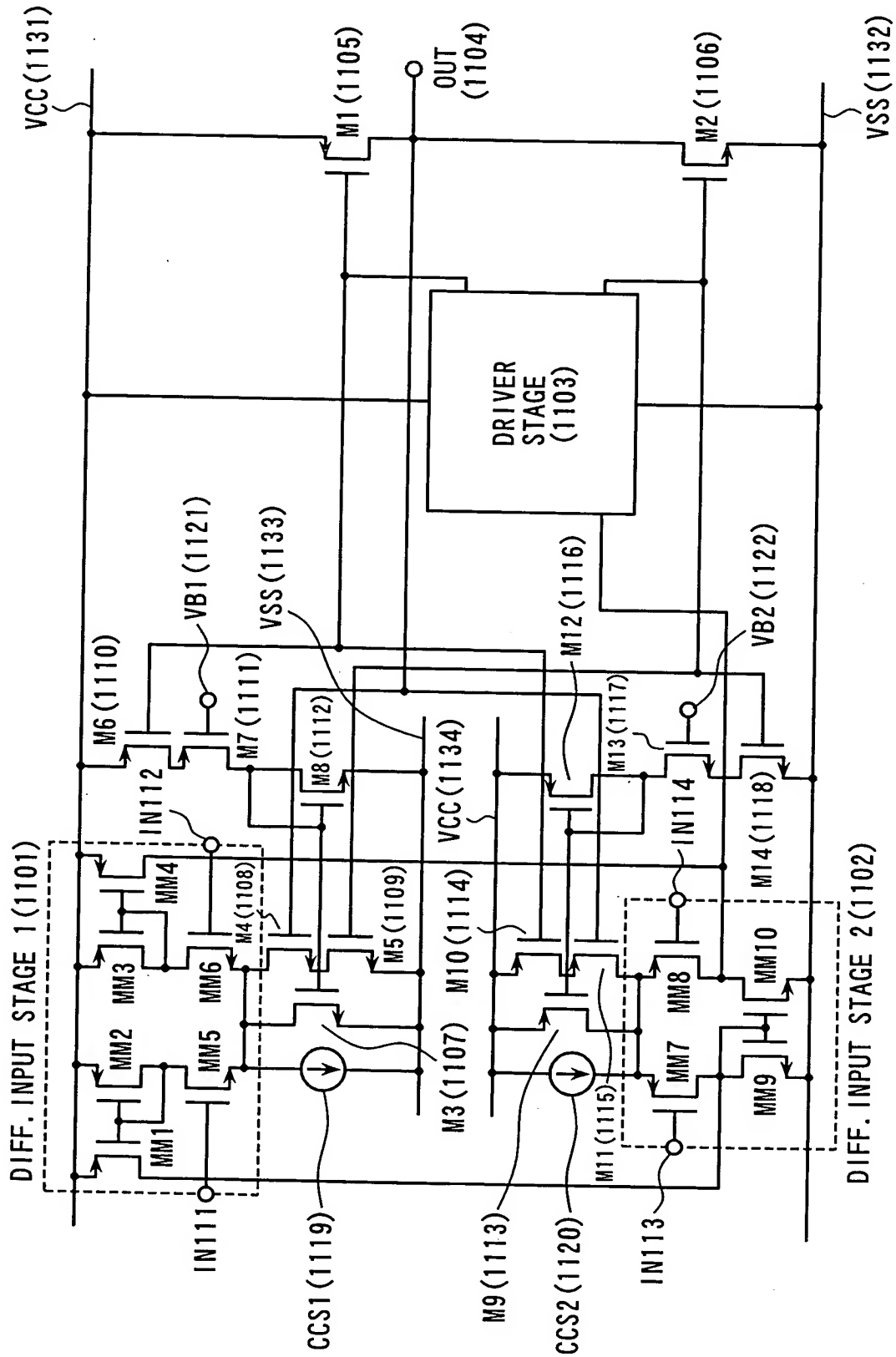


FIG. 12

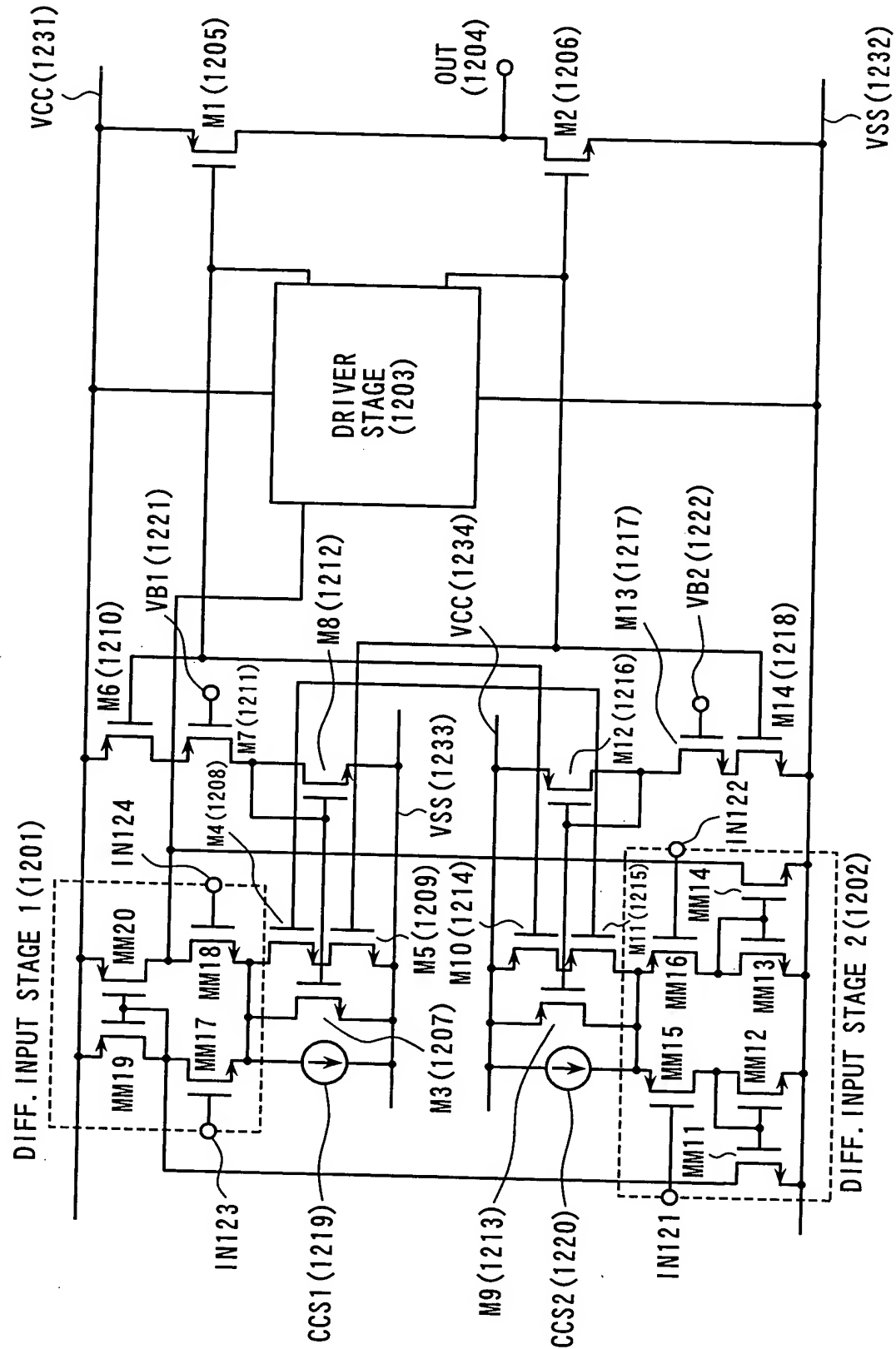


FIG. 13

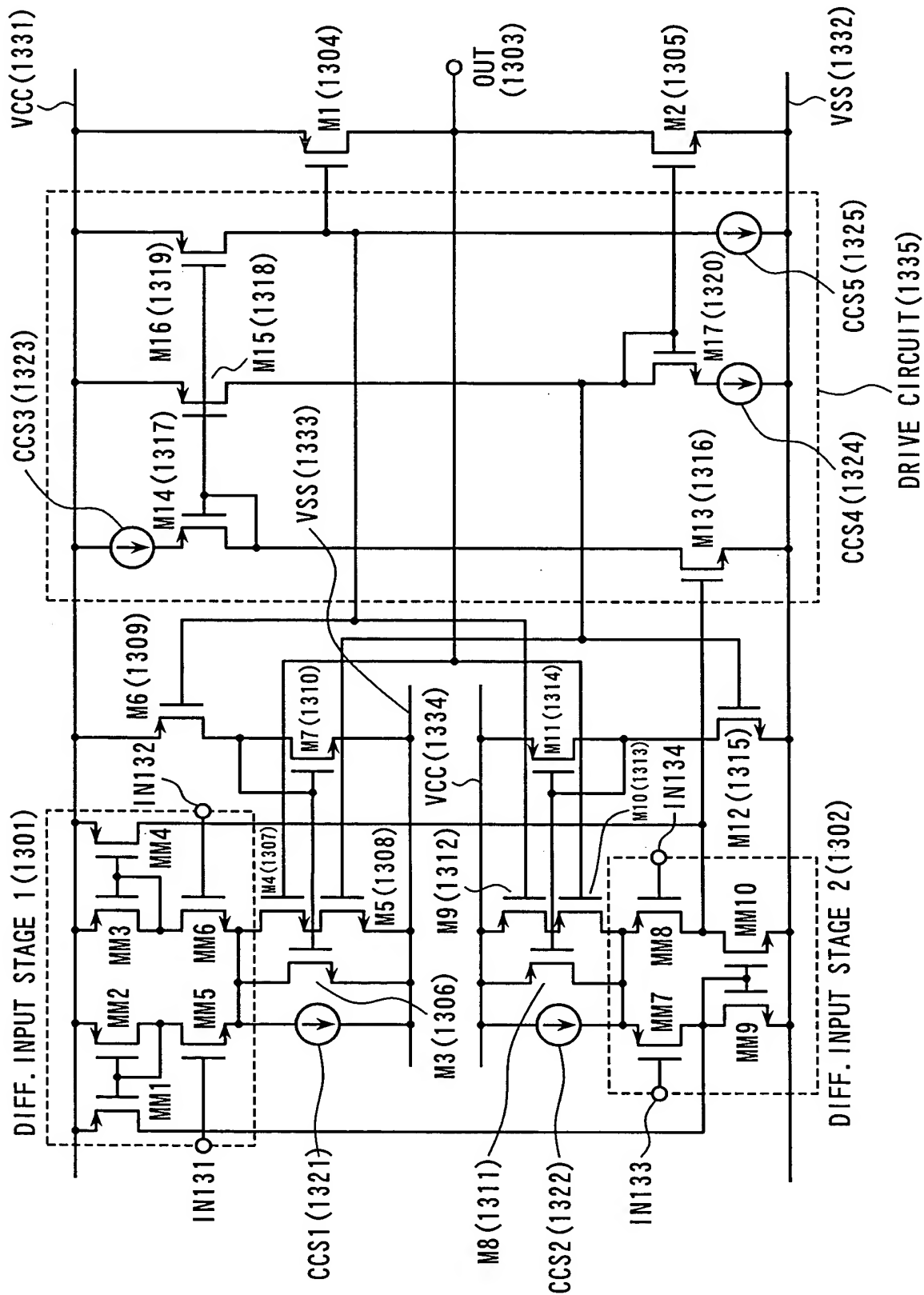


FIG. 14

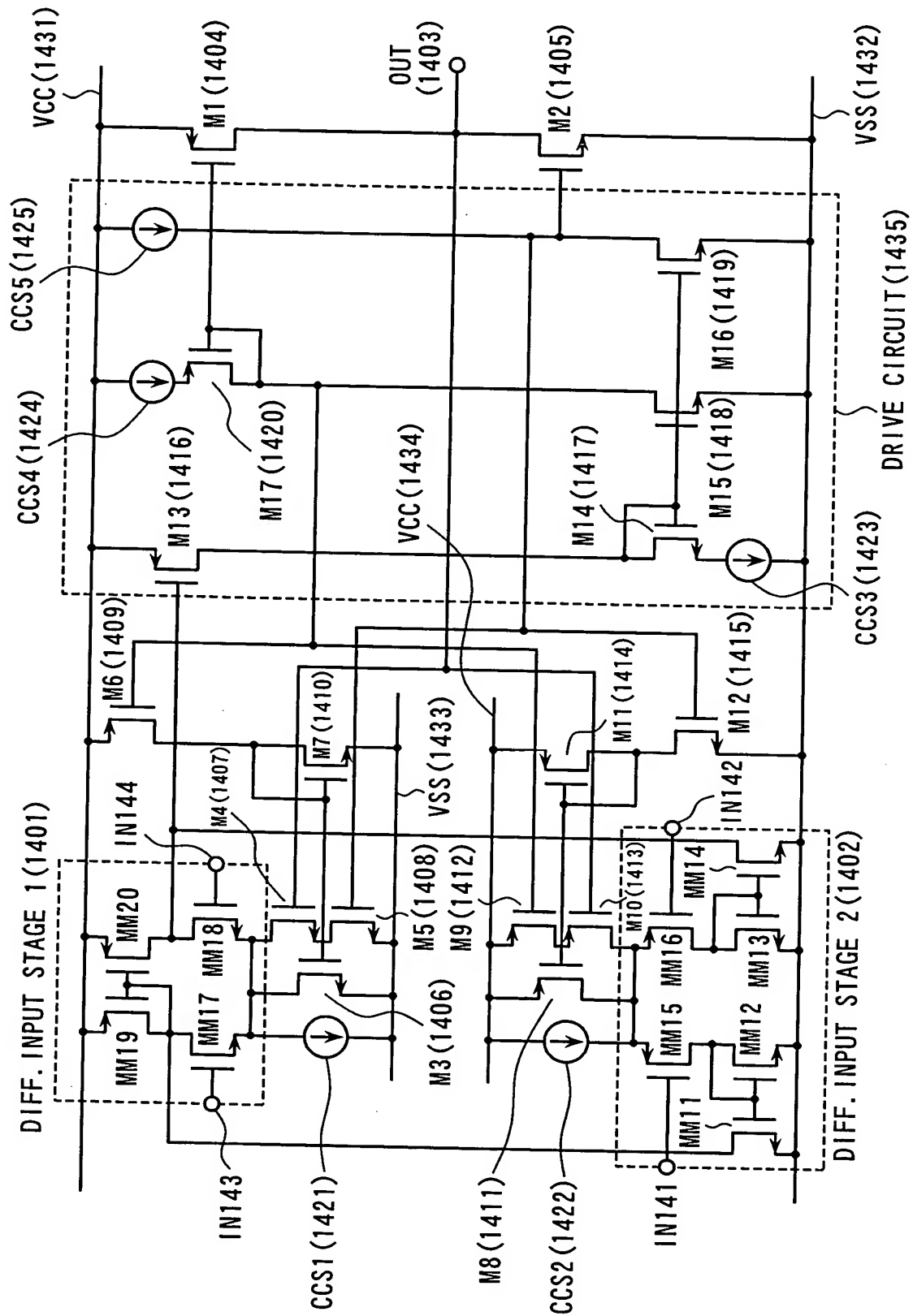


FIG. 15

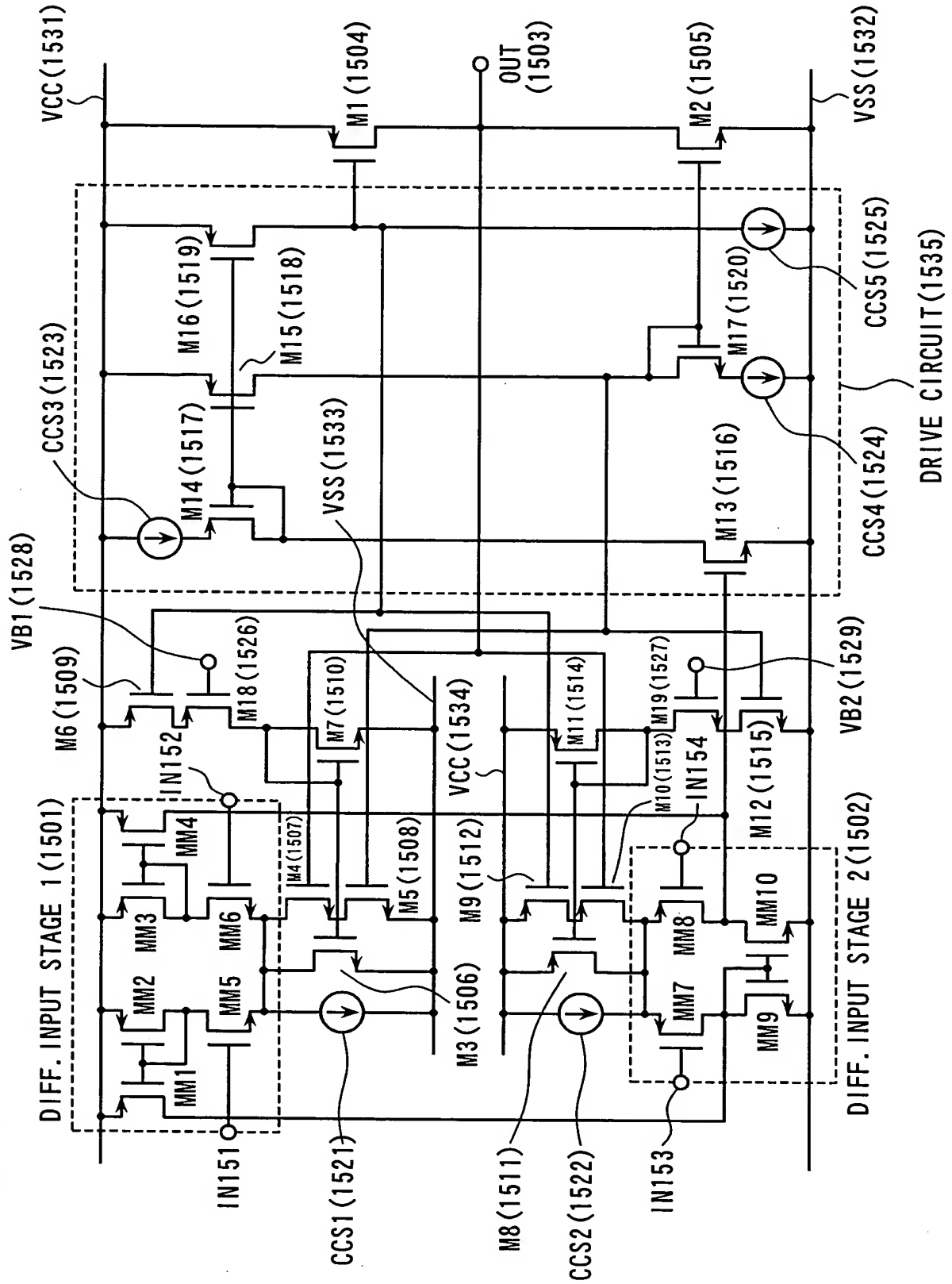


FIG. 16

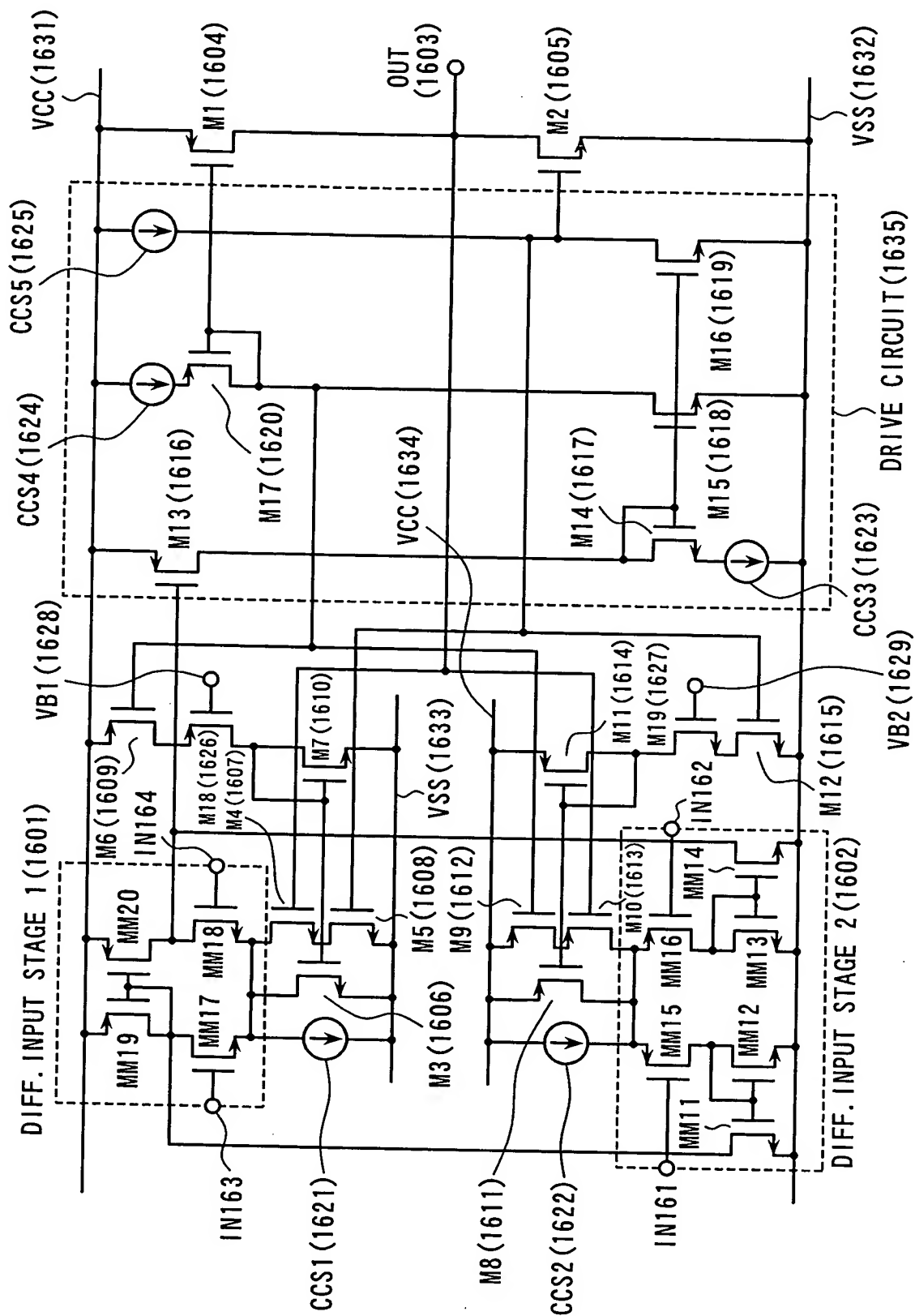


FIG. 17

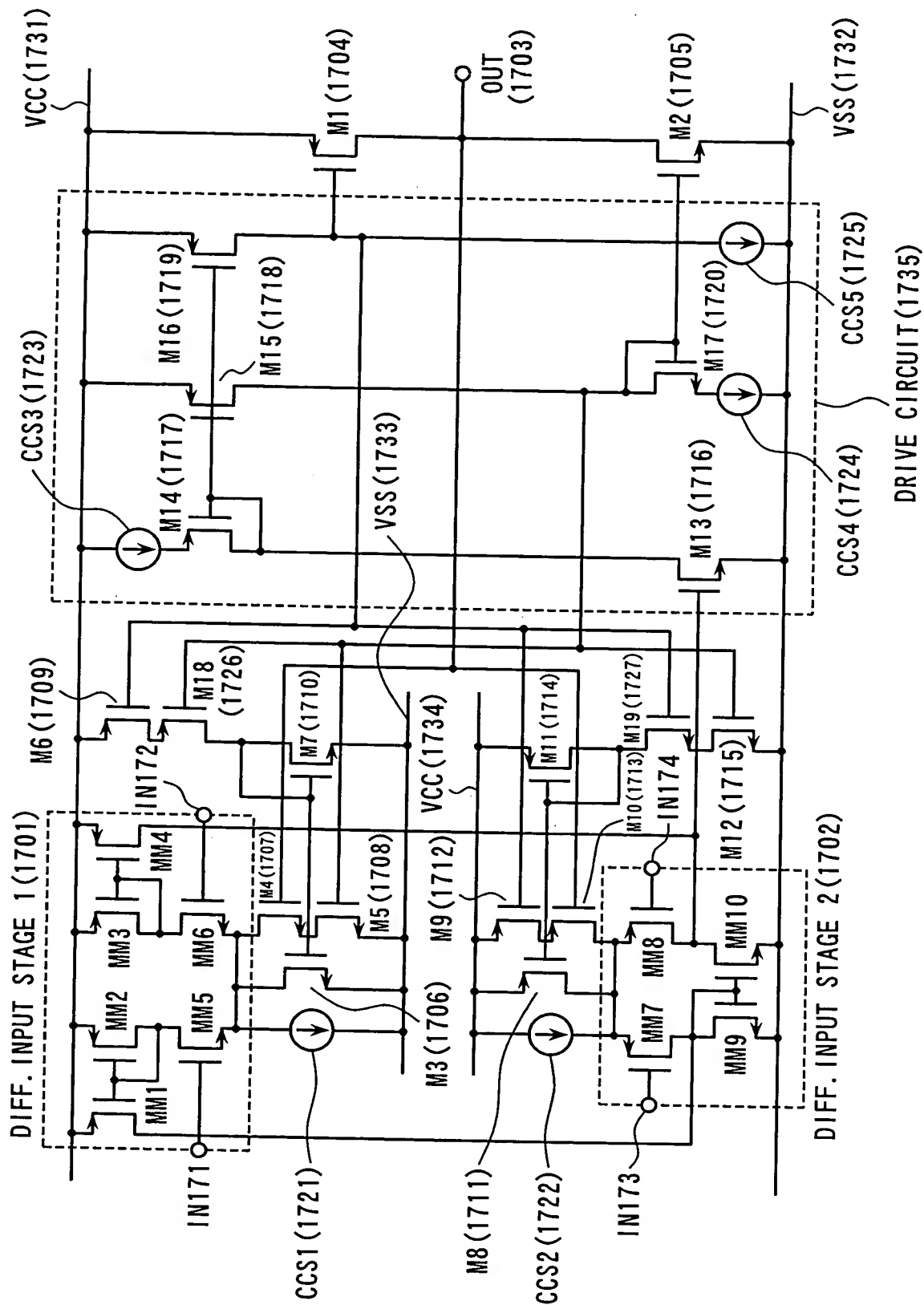


FIG. 18

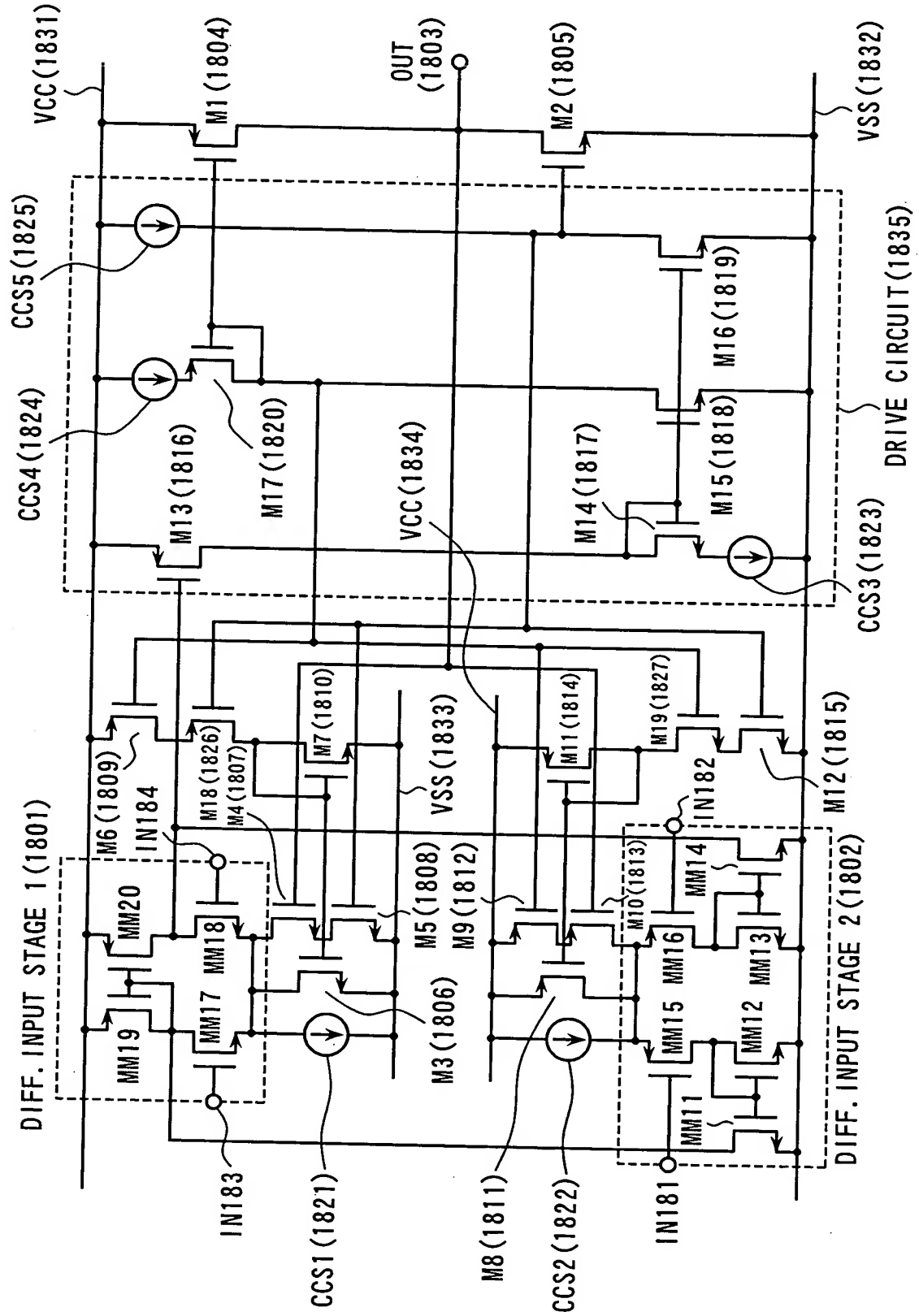
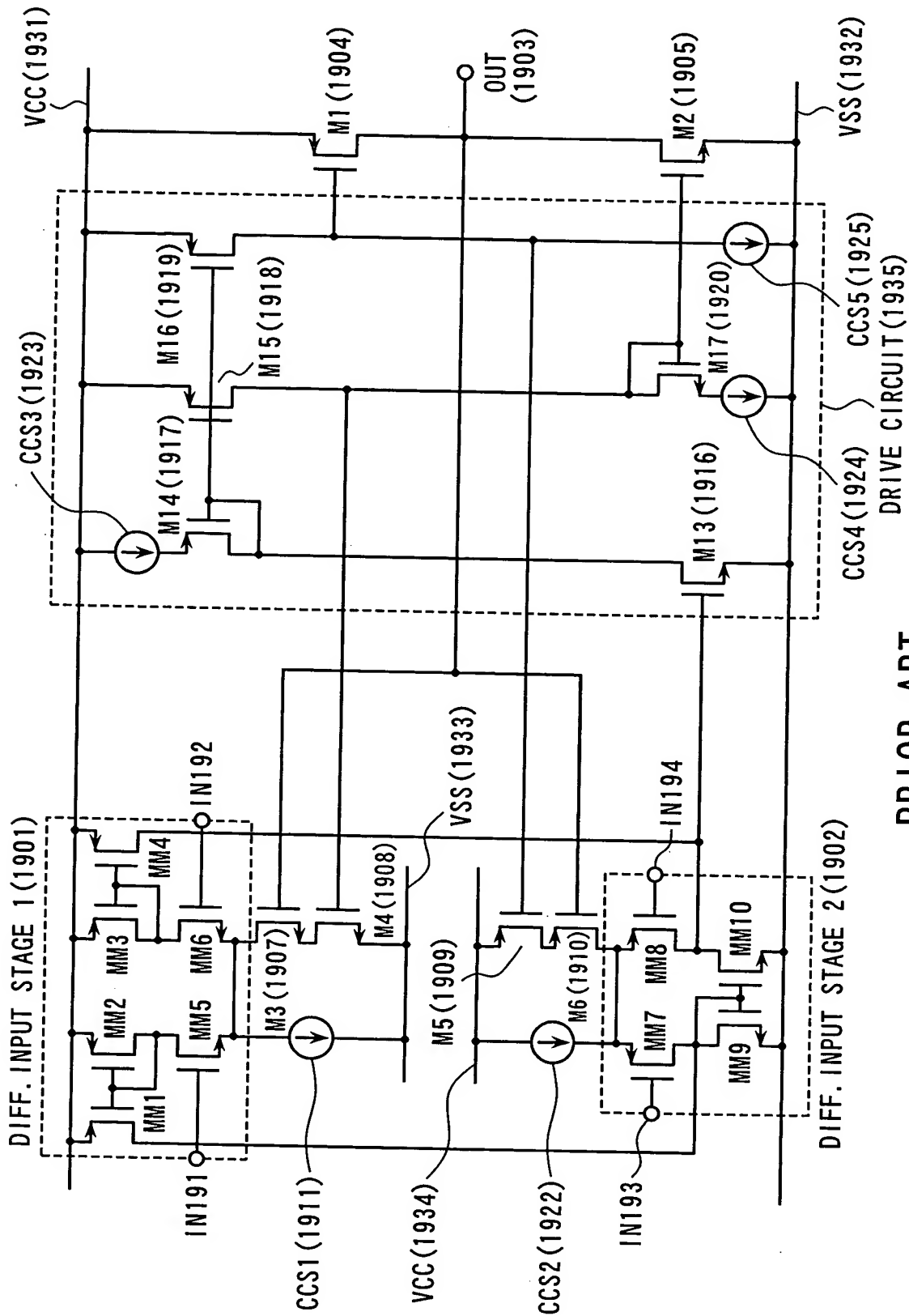


FIG. 19



PRIOR ART

FIG. 20A

SIMULATION RESULT	STATIC CURRENT VALUE	AMPLITUDE (V)
INVENTION	23.202	VCC=4.0V 3.8-0.2
PRIOR ART	20.786	VCC=4.6V 4.4-0.2
		VCC=5.0V 4.8-0.2
	11.6% INCREASE	

FIG. 20B

SIMULATION RESULT	OPERATING CURRENT VALUE (μA)		
	VCC=4.0V, Ta=85°C, Vt=H	VCC=4.6V, Ta=25°C, Vt=C	VCC=5.0V, Ta=40°C, Vt=L
INVENTION	26.987	39.848	57.383
PRIOR ART	24.593	35.504	50.744
	9.7% INCREASE	12.2% INCREASE	13.1% INCREASE

FIG. 20C

SIMULATION RESULT	SETTLING TIME (μs)					
	VCC=4.0V, Ta=85°C, Vt=H		VCC=4.6V, Ta=25°C, Vt=C		VCC=5.0V, Ta=40°C, Vt=L	
UP or DW	SUT	SDT	SUT	SDT	SUT	SDT
INVENTION	0.840	0.870	0.570	0.630	0.400	0.460
PRIOR ART	1.490	1.570	0.880	0.910	0.590	0.570
	43% DECREASE	45% DECREASE	35% DECREASE	30% DECREASE	32% DECREASE	20% DECREASE

FIG. 21

